

Please replace the paragraph beginning on page 7, line 11, as follows:

Referring to FIG. 4, the components of a video decoder 240 according to a first embodiment of present invention are further described. The video decoder 240 may be utilized as the hardware decoder 230 or software decoder 282 within the computer system 200. MPEG data received from an MPEG data source may be decoded and decompressed as follows. The video decoder 240 receives an MPEG bit stream 242 at a Variable Length Decoding (VLD) block 244. The VLD block 244 decodes the MPEG bit stream 242 and generates a quantized block 246 that is transferred to an Inverse Quantization Block (IQ block) 266. The IQ block 266 performs inverse quantization on the quantized block 246 to generate a frequency spectrum 268 for the quantized block. An Inverse Discrete Cosine Transform (IDCT) block 246 performs inverse discrete cosine transformation of the quantized block 246 using the frequency spectrum 268 to generate a decoded block 252 that is transferred to the motion compensation block (MCB) 248. Motion compensation is performed by the MCB 248 to recreate the MPEG data 256. Finally, color conversion block 262 converts the MPEG data 256 into the Red, Green, Blue (RGB) color space in order to generate pictures 264.

[Please replace the paragraph beginning on page 7, line 25, as follows:]

Conventional MPEG decoders, such hardware video decoder 230 or software video decoder 282, decode a compressed MPEG bit stream into a storage format depending on the particular compression format used to encode the MPEG bit stream. For the reasons described above, YUV planar format is the preferred format for compression of MPEG images within conventional MPEG decoders. Consequently, the decoded block 252 outputted by the IDCT block 250 as well as the MPEG data 256 outputted by the MCB 254 are generated in YUV planar format within conventional MPEG decoders. Unfortunately, YUV planar format is an inefficient format during motion compensation of the decoded block 252.

[Please replace the paragraph beginning on page 8, line 6, as follows:]

Accordingly, FIG. 5C depicts a novel mixed storage format 300 described by the present invention that is utilized by the video decoder 240. Careful review of FIGS. 5A-5C illustrates that Y component values are stored in a planar array 300A while the U and V components are interleaved in a packed array 300B. Using the mixed storage format 300, decoded block 252 received from the IDCT block 246 is converted from planar format (FIG. 5B) to the mixed storage format 300. Storage of reference frames 260 and MPEG data 256 in the mixed storage format 300 optimizes motion compensation of the decoded block 252 as depicted in FIGS. 6A and 6B.